

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Micro-machined vibrating structure comprising a fixing end ~~(5)~~, connected in secured manner to a fixed support ~~(6)~~, and at least one vibrating wall ~~(7)~~, in which progressive or stationary waves are generated and comprising a base (8) and a free end ~~(9)~~, the vibrating wall ~~(7)~~ being formed by a side wall of a hollow shell, vibrating structure ~~characterized in that~~ wherein the fixing end ~~(5)~~ is formed by the base ~~(8)~~ of the hollow shell, a naturally decoupled zone being situated between the fixing end ~~(5)~~ and the free end ~~(9)~~ of the vibrating wall ~~(7)~~.

2. (Currently Amended) Vibrating structure according to claim 1, ~~characterized in that~~ wherein the side wall of the hollow shell has a constant thickness ~~(e)~~.

3. (Currently Amended) Vibrating structure according to claim 1, ~~characterized in that~~ wherein the side wall of the hollow shell has a variable thickness, from a first value ~~(e1)~~ at the free end ~~(9)~~ to a second value ~~(e2)~~, greater than the first value ~~(e1)~~, at the base ~~(8)~~ of the hollow shell.

4. (Currently Amended) Vibrating structure according to claim 3, ~~characterized in that~~ wherein the thickness ~~(e)~~ of the side wall of the hollow shell varies linearly between the free end ~~(9)~~ and the base ~~(8)~~ of the hollow shell.

5. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 4~~claim 1, ~~characterized in that~~wherein the external face of the side wall of the hollow shell is cylindrical.

6. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 4~~claim 1, ~~characterized in that~~wherein the external face of the side wall of the hollow shell is tapered.

7. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 6~~claim 1, ~~characterized in that~~wherein the base (8) of the side wall of the hollow shell has a predetermined thickness (e, e2) and a circular cross-section of predetermined radius (R, R2).

8. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 6~~claim 1, ~~characterized in that~~wherein the base (8) of the side wall of the hollow shell has a predetermined thickness (e, e2) and an elliptical cross-section.

9. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 8~~claim 1, ~~characterized in that~~wherein the vibrating wall (7) is made in a silicon substrate (10).

10. (Currently Amended) Vibrating structure according to claim 9, ~~characterized in that~~wherein the fixed support (6) is made in the same substrate (10).

11. (Currently Amended) Vibrating structure according to claim 9, ~~characterized in that~~wherein the fixed support (6) is formed by an over-doped layer (11) of the substrate (10).

12. (Currently Amended) Vibrating structure according to claim 9, ~~characterized in that~~wherein the fixed support (6) is formed by a silicon oxide layer (12) formed under the substrate (10).

13. (Currently Amended) Vibrating structure according to claim 9, ~~characterized in that~~wherein the fixed support (6) is formed by a silicon oxide layer buried in the substrate (10).

14. (Currently Amended) Micro-gyroscope ~~characterized in that it comprises~~comprising at least one vibrating structure according to ~~any one of the claims 1 to 13~~claim 1, and electrodes (15) formed in the same substrate (10) as the vibrating wall (7) of the vibrating structure (4).

15. (Currently Amended) Micro-gyroscope according to claim 14, ~~characterized in that it comprises~~comprising two symmetrically arranged vibrating structures (4a) and (4b) sealed by their respective fixed supports (6).